

Title (en)

Vacuum system for membrane fuel stabilization unit

Title (de)

Vakuumsystem für Brennstoff-Stabilisierungseinheit mit Membran

Title (fr)

Système d'aspiration pour unité de stabilisation de combustible à membrane

Publication

EP 1798384 A3 20100714 (EN)

Application

EP 06256305 A 20061212

Priority

US 30291005 A 20051214

Abstract (en)

[origin: EP1798384A2] Oil system components for a turbine engine (12) are used to provide a vacuum system for a fuel stabilization unit (FSU) (16). A vacuum system pulls oxygen and other contaminants from fuel into a vacuum chamber (26) within the FSU (16). The vacuum system pumps the discharge through a vacuum outlet (30) in the FSU (16) toward a vacuum pump (32). Due to the quality of vacuum required, a two-stage vacuum pump (32) is used. A first stage vacuum pump is an oil system scavenge pump (36) for the turbine engine (12) and the second stage vacuum is provided by a second stage vacuum pump (38). The discharge flows from the vacuum chamber (26) through to the second stage vacuum pump (38) and is then added to the oil supply. The oil and discharge mixture is sent through an oil system de-oiler (42) and a de-aerator (44) to clean the oil supply prior to pumping the oil back through the oil system.

IPC 8 full level

F01D 25/20 (2006.01); **B01D 19/00** (2006.01); **B01D 63/10** (2006.01); **B64D 37/32** (2006.01); **F02C 7/16** (2006.01); **F02C 7/22** (2006.01); **F02C 7/32** (2006.01)

CPC (source: EP US)

B01D 19/0036 (2013.01 - EP US); **F01D 25/20** (2013.01 - EP US); **F02C 7/16** (2013.01 - EP US); **F02C 7/22** (2013.01 - EP US); **F02C 7/32** (2013.01 - EP US); **F05D 2220/722** (2013.01 - EP US); **Y02E 20/18** (2013.01 - EP US); **Y02T 50/60** (2013.01 - EP US)

Citation (search report)

- [A] US 6315815 B1 20011113 - SPADACCINI LOUIS J [US], et al
- [A] EP 1559884 A2 20050803 - UNITED TECHNOLOGIES CORP [US]
- [A] EP 1579901 A1 20050928 - UNITED TECHNOLOGIES CORP [US]

Cited by

CN107150811A

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR

Designated extension state (EPC)

AL BA HR MK RS

DOCDB simple family (publication)

EP 1798384 A2 20070620; **EP 1798384 A3 20100714**; **EP 1798384 B1 20140625**; JP 2007162691 A 20070628; JP 4455575 B2 20100421; US 2007131110 A1 20070614; US 2009266229 A1 20091029; US 7571596 B2 20090811; US 8679226 B2 20140325

DOCDB simple family (application)

EP 06256305 A 20061212; JP 2006333936 A 20061212; US 30291005 A 20051214; US 49589709 A 20090701